

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 03/13177

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B60T7/10 B60T7/06 B60T11/08 G05G7/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B60T G05G B60K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category.*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 989 474 A (CICOTTE EDMOND B ET AL) 5 February 1991 (1991-02-05) column 4, line 32 -column 5, line 3; figure 2 column 7, line 44 -column 8, line 15	1,7,8, 14,18-20
X	US 5 460 061 A (REDDING HARRY L ET AL) 24 October 1995 (1995-10-24) column 3, line 42 -column 4, line 15 column 5, line 31 - line 44	1,5-7, 14, 18-20, 24,25
A	FR-2 739 947-A-(RENAULT) - - - - - 18 April 1997 (1997-04-18) abstract; figures 1,2 -/-	1,24,25



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

G document member of the same patent family

Date of the actual completion of the international search

31 March 2004

Date of mailing of the international search report

06/04/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Ibáñez Lajo, M

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 02/13177

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 410 815 A (FUJI KIKO KK) 30 January 1991 (1991-01-30) column 3, line 41 - line 53; figure 1 ---	1
A	EP 1 251 417 A (DELPHI TECH INC) 23 October 2002 (2002-10-23) abstract; figure 1 ---	1
A	US 5 832 784 A (CZOPEK BRIAN J ET AL) 10 November 1998 (1998-11-10) column 3, line 62 -column 5, line 8; figures 2,3 -----	1

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 02/13177

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 4989474	A	05-02-1991	CA 2055448 A1 DE 69022049 D1 DE 69022049 T2 EP 0471791 A1 JP 4505063 T WO 9013862 A1 US 5078024 A CA 1289039 C DE 3786123 D1 DE 3786123 T2 EP 0256466 A2 JP 1925412 C JP 6040292 B JP 63049528 A MX 160220 A US 4875385 A	02-11-1990 05-10-1995 07-03-1996 26-02-1992 03-09-1992 15-11-1990 07-01-1992 17-09-1991 15-07-1993 14-10-1993 24-02-1988 25-04-1995 25-05-1994 02-03-1988 09-01-1990 24-10-1989
US 5460061	A	24-10-1995	WO 9508145 A1	23-03-1995
FR 2739947	A	18-04-1997	FR 2739947 A1	18-04-1997
EP 0410815	A	30-01-1991	JP 3030116 U JP 3030117 U EP 0410815 A1 US 5086663 A	25-03-1991 25-03-1991 30-01-1991 11-02-1992
EP 1251417	A	23-10-2002	US 2002148322 A1 EP 1251417 A1	17-10-2002 23-10-2002
US 5832784	A	10-11-1998	NONE	